BioSketch

Air Toxics Research Strategy/MYP Review Panel

Balbus,John

John M. Balbus, M.D., M.P.H. is a senior scientist and director of the environmental health program for Environmental Defense. Dr. Balbus' background combines training and experience in clinical medicine with expertise in epidemiology, toxicology and risk sciences. He has authored studies and lectures on global climate change and health, waterborne hazards, the toxic effects of chemicals, and regulatory approaches to protecting susceptible subpopulations. Dr. Balbus received his A.B. degree in Biochemistry from Harvard University, his M.D. from the University of Pennsylvania, and his M.P.H. from the Johns Hopkins University. He completed his internal medicine residency at Pennsylvania Hospital and his residency in occupational and environmental medicine at the Johns Hopkins School of Hygiene and Public Health.Prior to joining Environmental Defense, Dr. Balbus spent seven years at The George Washington University, where he was founding Director of the Center for Risk Science and Public Health and served as Acting Chairman of the Department of Environmental and Occupational Health. Appointed in both the School of Public Health and Health Services and the School of Medicine and Health Sciences, Dr. Balbus taught toxicology, environmental health and occupational medicine to both graduate public health students and medical students. He was principle investigator on a five year cooperative agreement with the US EPA's Office of Water, concerning microbial risk assessment and susceptible subpopulations. Dr. Balbus is a Fellow of the American College of Physicians, and member of the American Public Health Association, American College of Occupational and Environmental Medicine, and the Society for Risk Analysis.

Helble,Joseph

General BiosketchJoseph J. Helble is Professor and Head of the Department of Chemical Engineering and a member of the Environmental Engineering faculty at the University of Connecticut (UConn). His research is primarily in the area of air pollution, with specific activities and interests in combustion-derived particulate matter formation and control, trace metal and air toxics air pollutants, air quality modeling, ambient particulate matter, carbon dioxide capture, and particle coalescence. Dr. Helble also leads a research program in the area of nanoscale materials processing. He is the author of over 90 publications, primarily in the air pollution field, and is a member of the editorial board of the journal Fuel Processing Technology. Prior to joining the UConn faculty in 1995, Professor Helble spent 8 years at Physical Sciences Inc., a small business specializing in environmental and energy technology research and development. He also spent a fellowship period at U.S. EPA headquarters in Washington D.C as a science and policy fellow of the American Association for the Advancement of Science (AAAS), and received the Barnard Award from AAAS for outstanding work as an EPA Fellow in 1993. Dr. Helble is active in the American Association of Aerosol Science, where he recently served as Chair of the Combustion Aerosols Working Group, the American Chemical Society (Fuel Chemistry Division), and the American Institute of Chemical Engineers, and is a member of the CT DEP SIPRAC (State Implementation Plan Revision Advisory Committee). He has also served on numerous NSF advisory and review panels in environmental engineering and in combustion. Professor Helble is a 1982 summa cum laude B.S. graduate of Lehigh University in chemical engineering, and a 1987 chemical engineering Ph.D. graduate of the Massachusetts Institute of Technology. His current research is supported by the EPA including a STAR grant, NASA, DOE, the Department of Defense, and the National Science Foundation.

Henderson,Rogene

Dr. Rogene Henderson is currently the Director of the Lovelace Respiratory Symposium at the Lovelace Respiratory Research Institute. Dr. Henderson earned her Ph.D. in chemistry from the University of Texas in 1960 and her B.S./B.A. in Chemistry from Texas Christian University in 1955. She was a Fulbright Scholar in Physical Chemistry in 1955-1956 and held fellowships and the Universities of Texas and Arkansas. Dr. Henderson's research interests are in three major areas: (1) biochemistry of the lung, particularly the surfactant lining layer – she has developed in vivo screening tests for pulmonary toxicants based on analysis of bronchoalveolar washings for biomarkers of lung injury and repair; (2) the mechanisms by which pulmonary inflammation leads to repair or to chronic disease (fibrosis, emphysema); and, (3) the pharmacokinetics of inhaled xenobiotics (particularly vapors) and chemical-specific biomarkers of chemical exposure. Dr. Henderson is currently a member of: the U.S. Army Deployment Toxicology Science Working Group; the Health Effects Institute Research Committee; the National Research Council/National Academy of Sciences' Board on Environmental Studies and Toxicology; and, the American Cancer Society Advisory Group on Cancer and the Environment. Past advisory committee activities for Dr. Henderson include: invited member of the January 1995 National Toxicology Program Workshop on "Mechanism-Based Toxicology in Cancer Risk Assessment: Implications for Research, Regulation and Legislation;" member of the World Health Organization Advisory Group on Use of Biological Markers in Risk Assessment (1989, 1992); member of the Ad Hoc Advisory Group on Biologic Markers for EPA Science Advisory Board, Environmental Health Committee (1989); member of the NAS/NRC Subcommittee on Guidelines for Estimating Acceptable Acute Exposures for Hazardous Substances (1990-1992); and, member of the Environmental Protection Agency's Science Advisory Board, Environmental Health Committee (1991-1995). Recent sources of funding for Dr. Henderson include the Lovelace Respiratory Research Institute endowment, the U.S. Department of Defense and the National Institute of Environmental Health Sciences (NIEHS) of the National Institutes of Health (NIH).

Hornbuckle,Keri

Keri Hornbuckle is an associate professor in the department of Civil and Environmental Engineering at the University of Iowa. She earned a Bachelors of Arts degree from Grinnell College (Chemistry) in May, 1987 and a Ph.D. from the University of Minnesota- Minneapolis (Dept Civil and Environmental Engineering) in January 1996. Dr. Hornbuckle's research has focused on methods for measuring and predicting the cycling of persistent organic pollutants (POPs) in natural systems, including exchange of atmospheric POPs with surface waters and vegetation. She has extensive experience in field and analytical methods for POPs, including measurements in natural systems, design and implementation of climate chamber experiments.

and modeling of air-surface exchange. Her work has included the development of a regional model for net deposition of PCBs, atrazine, trans-nonachlor, and nutrients into Lake Michigan, field expeditions in Lakes Superior, Ontario, and Michigan, and field exper! iments to examine the effect of climate on exchange of SOCs in forests and large storms in the Great Lakes. She was a member of the Science Advisory Board of the International Joint Commission from 1998 to 2002 and a liaison to the International Air Quality Advisory Board of the IJC from 2000-2002. She is an editor of the Journal of Great Lakes Research, a member of the Lake Michigan Air Toxics Task Force, and is current chair of the Dissertation awards committee for the Association of Environmental Engineering and Science Professors. At the University of Iowa, she is a member of the executive committee for the Center for Global and Regional Environmental Research and is Director of the Environmental Assessment Facility Core of the Environmental Health Sciences Research Center (an NIEHS Center) since 2002. Current or recent sources of research funding include the U.S. EPA, the National Institute for Environmental Health Sciences, the National Science Foundation, the National Park Service, the University of Iowa Office of VP for Research (CIP Fund), the Center for Global and Regional Environmental Reserach, and the Center for Health Effects of Environmental Contamination.

Koutrakis,Petros

Petros Koutrakis is Professor of Environmental Sciences and director of the Environmental Chemistry Laboratory at Harvard University. He received his Ph.D. in environmental chemistry from the University of Paris. His research interests include human exposure assessment, ambient and indoor air pollution, environmental analytical chemistry, and environmental management. He is Technical Editor-In-Chief of the Journal of the Air and Waste Management Association, consultant to the EPA Science Advisory Board, and an advisor to the International Monitoring of Protected Visual Environments (IMPROVE), Pan American Health Organization (PAHO), World Health Organization (WHO), and the United Nations Environment Program (UNEP). He has served on several EPA review panels and chaired the EPA Review Panel for Research Proposals on Ambient Particle Modeling He is the PI of the EPA/Harvard Center on particle health effects; Co-PI on two NIEHS Program projects (Cardiac effects of air pollution). In addition, he is the PI of exposure assessment and air quality studies funded by EPA, HEI, EPRI, API, and DOE.

Levin,Leonard

Currently: Technical Leader, EPRI; Program Manager, Air Toxics Health & Risk Assessment, EPRI; Mercury Issue Manager, EPRIEducation: B.S., MIT; M.S., University of Washington; Ph.D., University of MarylandExpertise/research: environmental modeling; air and multimedia quality; human exposure; risk assessment; atmospheric physics and circulationService: EPA Peer Review Panels: Mercury Study Report to Congress; Mercury Research Strategy. American Chemistry Council, proposal reviews on multimedia studies. U.S. Department of Energy: panel on multimedia modeling for haz waste mitigation; panelist, Valuing Externalities workshop (NETL); curriculum committee, Environmental Management, University of California at Berkeley; president, Society for Risk Analysis, Northern CaliforniaRecent support: primarily EPRI member base funding; awardee, contract with DOE NETL, competitive bid, Mercury Chemistry in Power Plant Plumes; awardee, competitive bid, State of Wisconsin Focus on Energy

Lippmann,Morton

Dr. Lippmann is a Professor of Environmental Medicine at the New York University (NYU) School of Medicine. He holds a Ph.D. (NYU, 1967) in Environmental Health Science, an S.M. (Harvard University, 1955) in Industrial Hygiene, and a B.Ch.E. (The Cooper Union, 1954) in Chemical Engineering. At NYU, he directs a research program on Human Exposureand Health Effects, and the EPA-supported Particulate Matter Health Effects Research Center. He has been the recipient of numerous awards for his research and contributions in aerosol science and pulmonary physiology, human exposure assessment and dosimetry, chemical transformations in the atmosphere, population studies of exposure-response relationships in occupational and community cohorts, and factors affecting the toxicity of airborne fibers. Much of this research has been focused on specific chemical agents, notably ozone, sulfuric acid, and asbestos. Dr. Lippmann is a past President of the International Society of Exposure Analysis (1994-1995), past Chairman of: the ACGIH (1982-1983); the EPA Science Advisory Board's ExecutiveCommittee (2000-2001); EPA's Advisory Committee on Indoor Air Quality and Total Human Exposure (1987-1993); and EPA's Clean Air Scientific Advisory Committee (1983-1987). He has also chaired and been a memberof numerous National Research Council committees, including committeeson the airliner cabin environment and the health of passengers and crew, synthetic vitreous fibers, measurement and control of respirable dust in mines, indoor pollutants, toxicity data elements, and in-vivo toxicity testing of complex mixtures. His publications include over 275 research and review papers in the scientific literature and two reference texts onenvironmental health science. He is currently the Director of the EPA-supported Particulate Matter Health Effects Research Center at NYU, and of an EPA-Cooperative Agreement with NYU on personal exposure of respiratory disease patients to particulate matter in ambient air.

Manning,Randall

Dr. Manning is the Coordinator of the Environmental Toxicology Program in the Georgia Department of Natural Resources, Environmental Protection Division. Dr. Manning received his Ph.D. in 1986 from the University of Georgia (UGA), College of Agriculture where he studied the toxicity and metabolism of mycotoxins. Prior to joining the Georgia Environmental Protection Division (GAEPD) in 1990, Dr. Manning was a Postdoctoral Research Associate (1987-88) and an Assistant Research Scientist (1989-90) in the Department of Pharmacology and Toxicology at UGA, studying the toxicity of volatile organic chemicals and the development of physiologically-based pharmacokinetic models for use in risk assessment. As the Coordinator of the Environmental Toxicology Program at GAEPD, Dr. Manning is responsible for providing the Division with support in toxicology and risk assessment. Dr. Manning's research interests relate to the development of risk-based approaches for evaluation of environmental contamination by regulatory agencies. Dr. Manning is a member of the Society of Toxicology, a Diplomate of the American Board of Toxicology, and an Adjunct Assistant Professor in the Department of Pharmaceutical and Biomedical Sciences, College of Pharmacy, University of Georgia and the Department of Environmental and Occupational Health, Rollins School of Public Health, Emory University.Dr. Manning has worked in areas related to air risk assessment since 1990. He played a significant role in revising the process used by the State of Georgia to evaluate air emissions for permitting in1994.

incorporating the use of risk-based approaches. He has also conducted a number of site-specific air risk assessments in Georgia. Additionally, Dr. Manning has been instrumental in developing standardized approaches for evaluating data collected from the growing network of state-wide air toxics monitors. Dr. Manning has no grant or contractual support.

McMillan,Mark

Mark McMillan is an Environmental Health Scientist with the Colorado Department of Public Health and Environment’s Air Pollution Control Division. Areas of expertise include: air toxics, health effects of air pollutants, and risk reduction. To date, Mark has prepared over seventy(70) documents and presentations regarding environmental quality and health effects. Mark serves on several air toxics' advisory committees such as those of STAPPA, the Air & Waste Management Association, the State of Colorado, etc. and lends his expertise accordingly. Mark received his Bachelor of Science degree in Environmental Health from Colorado State University and a Master of Science in Toxicology from the University of Washington. Mark is a public employee and is paid by the State of Colorado. No other contractual support exists.

Miller,Frederick J.

Dr. Fred Miller is currently Vice President for Research at CIIT Centers for Health Research (CIIT). He has been at CIIT since February, 1991. Dr. Miller received a B.A. and M.S. in Statistics from the University of Wyoming. In 1968, he began a career as a commissioned officer in the U.S. Public Health Service (PHS). As a mathematical statistician involved with the design and analysis of studies on the effects of air pollutants on animals, Dr. Miller became interested in the use of such studies for assessing human health risks. He was assigned to the U.S. Environmental Protection Agency (EPA) when it was created in 1970. In 1971, Dr. Miller received an EPA long-term training award, which led to his doctoral research on the transport and removal of ozone in the lungs of animals and man. He received his Ph.D. in Statistics from North Carolina State University in 1977. During his career with EPA, Dr. Miller served as Director of the Health Effects Research Laboratory's Inhalation Toxicology and Environmental Toxicology Divisions. He was the senior author of the paper that established EPA's policy for considering inhalable particles of potential health concern to be those less than 15 µm in aerodynamic diameter as opposed to total suspended particulate matter. Dr. Miller was heavily involved in Agency activities leading to the development of the PM10 primary standards in 1987. Upon retirement from the PHS in 1989, Dr. Miller joined the faculty of Duke University Medical Center, continuing his long-standing interest in extrapolation modeling through his capacity as an Associate Director of the Duke Center for Extrapolation Modeling. Dr. Miller is interested in developing and implementing research strategies and projects that permit increased utilization of animal toxicological results to evaluate the likelihood of human risk from exposure to inhaled chemicals. His primary research interests include pulmonary toxicology, respiratory tract dosimetry of gases and particles, lung physiology and anatomy, extrapolation modeling, and risk assessment. Dr. Miller is internationally recognized for his research on the dosimetry of reactive gases. He is active in professional societies and consulting on environmental health issues. The author or co-author of more than 150 publications, Dr. Miller received a number of Scientific and Technical Achievement awards from EPA and is the recipient of the PHS' Outstanding Service Medal. He served as an ad hoc consultant to the EPA's Science Advisory Board and Clean Air Scientific Advisory Committee (CASAC) prior to being appointed in October 2000 as a CASAC member. Dr. Miller has also been an advisor to various other public organizations and currently chairs the Science Advisory Committee for the National Jewish Medical and Research Center's (Denver, Colorado) Environmental Lung Center.Dr. Miller is currently the Principal Investigator on a contract with Bespak, Europe, LT, for the conduct of respiratory dosimetry research aimed at targeting drug delivery to the respiratory tract via the nose.

Overcamp,Thomas

Thomas J. Overcamp is a professor of Environmental Engineering & Science at Clemson University. He teaches and conducts research in air pollution control. He earned a BS in mechanical engineering from Michigan State University, and an SM and PhD in mechanical enginering from the Massachusetts Institute of Technology. He has extensive experience in air pollution, air pollution modeling, risk assessment, and engineering control of organic pollutants and mercury. His current research interests include plume rise and the use of bioscrubbers for the control of volatile organic emissions. Recent sources of research/training funding include South Carolina Universities Research and Education Foundation, USERDA, and EnVitco, Inc. He currently has no research funding.Dr. Overcamp is a fellow of the Air & Waste Management Association, qualified environmental professional (QEP), a registered professional engineer in South Carolina, and a diplomate of the American Academy of Environmental Engineers. He is a former member of the Board of Directors of the Air & Waste Management Association and chair of the Western Carolinas Chapter of the Air & Waste Management Association.

Zeise,Lauren

Dr. Lauren Zeise is Chief of Reproductive and Cancer Hazard Assessment within the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment. Dr. Zeise currently serves on the EPA Science Advisory Board Research Strategies Advisory Committee, and served previously as a member of the SAB Environmental Health Committee and Integrated Risk Project, and as consultant to the Clean Air Act Scientific Advisory Committee, Environmental Engineering Committee, FIFRA Science Advisory Panel, EPA Board of Scientific Counselors, and on various ad hoc advisory committees of the Agency. Other service includes membership on various committees of the National Institute of Medicine (IOM), National Research Council (NRC), Consumer Product Safety Commission, National Toxicology Program, Office of Technology Assessment. She currently serves on the IOM Board of Health Promotion and Disease Prevention and NRC Board on Environmental Sciences and Toxicology. She is a member, fellow and councilor of the Society of Risk Analysis and is on the editorial board for the Society's journal. The National Cancer Institute Smoking and Tobacco Smoke Monograph Health Effects of Environmental Tobacco Smoke was conceived and developed under her editorial direction. For California EPA, she has overseen a variety of the state's cancer, reproductive and ecological risk assessment activities. Her current work addresses cancer and reproductive risk methodologies and characterizations, development of ecological risk guidance, establishment of baseline risks from gasoline use in California and guidance for evaluating risks to the fetus, children and adolescents from environmental exposures. Her group also conducts scientific evaluations mandated by California's Proposition 65. Her research

has focused on cancer risk assessment methodology and applications. She is coauthor and coeditor of the 1999 International Agency for Research on Cancer monograph Quantitative Estimation and Prediction of Cancer Risk. Dr. Zeise received her M.S. and Ph.D. degrees from Harvard University, where she also conducted postdoctoral research on risk assessment methodology.